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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/863,046	05/22/2001	John J. Light	10559-455001	8351

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EXAMINER

NARAYANASWAMY, SINDYA

ART UNIT	PAPER NUMBER
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2174

DATE MAILED: 12/23/2003

6

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/863,046

Applicant(s)

LIGHT ET AL.

Examiner

Sindya Narayanaswamy

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 June 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-24 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4
- 4) ☐ Interview Summary (PTO-413) Paper No(s) _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

1. Claims 1-24 are presented for examination.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 1, 2, 6, 7, 9, 10, 14, 15, 17, 18, 22 and 23 are rejected under 35 U.S.C. 102(b) as being anticipated by Matsuda, US-6,346,956.

1. As per claim 1, Matsuda teaches a method of selecting a target object in virtual three-dimensional space, comprising:

identifying objects, including the target object, in the virtual three-dimensional space (Fig. 27; col. 4, lines 22-23);

determining distances between the objects and a point in the virtual three-dimensional space (processing of viewpoint data) (col. 15, lines 6-12);

prioritizing the objects based on distances and identities of the objects (col. 4, lines 35-42; Fig. 32-33); and selecting the target object from among the objects based on priority (Abstract, lines 9-13).

2. As per claim 2, Matsuda teaches the method wherein the objects comprise one or more of a link object (anchor) and non-link object (col. 5, lines 41-52).

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3. As per claim 6, Matsuda teaches the method wherein identifying comprises distinguishing between a link object and a non-link object (anchor objects vs. non-anchor objects) (Fig. 35; col. 37, lines 57-67).

4. As per claim 7, Matsuda teaches the method further comprising: receiving coordinates based on a user input; and locating the objects in the virtual three-dimensional space based on the coordinates (*detailed coordinate value information*) (Fig. 32; col. 33, lines 39-56).

5. As per claims 9, 10, 14, 15, 17, 18, 22 and 23, they are the apparatus and article claims of claims 1, 2, 6 and 7 and rejected on the same basis.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 3-5, 8, 11-13, 16, 19-21 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Matsuda, US-6,346,956.

8. As per claims 3 and 4, Matsuda does not teach the method as in claims 1 and 2 wherein prioritizing comprises assigning a higher priority to the non-link objects than to the link objects if the distances meet a predetermined criterion or assigning higher priority to the link object if the link object is closer to the point than a non-link object by a predetermined distance. However, official notice is taken that prioritizing objects is well known in the art, therefore it would have been obvious to one of ordinary skill in the art at the time of the invention to give higher priority to the non-link objects because the link objects do not represent actual data, as non-link objects do and give higher priority to link objects when they are easier to access, based on the predetermined distance factor.

9. As per claim 5, Matsuda does not teach the method as in claim 1, wherein the predetermined distance comprises 0x1000000. However, official notice is taken that fixing predetermined distances of objects is well known in the art, therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to fix the distance between linked and non-linked objects in order to for objects to be prioritized and selected.

10. As per claim 8, Matsuda does not specifically teach the method as in claim 1, wherein determining the distances comprises obtaining differences between coordinates in the virtual three-dimensional space for the objects and coordinates in the virtual three-dimensional space for the point. However, official notice is taken that calculating distance based on XYZ axis coordinate points is well known in the art, therefore it would

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have been obvious to one ordinary skill in the art at the time of the invention to use coordinate calculation as the method to determine the distance between the objects in the three-dimensional space.

11. As per claims 11-13, 16, 19-21 and 24, they are the apparatus and article claims of claims 1-8 and are rejected on the same basis.

Conclusion

12. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

a) "System and Method for Using a Pointing Device to Indicate Movement Through Three-Dimensional Space" – US-5,841,440 - *3-D space navigation*

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Sindya Narayanaswamy whose telephone number is (703) 305-8473. The examiner can normally be reached on 8 am to 5 pm, first Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kristine Kincaid can be reached on (703) 308-0640. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-9000.

December 4, 2003


KRISTINE KINCAID
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2100